

Date: Thursday, 18/09/2008 11:14:01 AM
User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: FLANGE ASS'Y
Job Number	: 42114	Part Number	: D3651043
Estimate Number	: 13032	Drawing Number	: D3651 REV.B
P.O. Number	:	Project Number	: N/A
This Issue	: 18/09/2008	Type	: SMALL /MED FAB
Prsh Rev.	: NC	Drawing Revision	: B
First Issue	: / /	Material	:
Previous Run	: 40856	Due Date	: 25/09/2008
Written By	:	Qty:	2
Checked & Approved By	: <u>JULIE 08.9.18</u>	Um:	Each
Comment	: Est Rev:A New Issue 07-09-27 DD verified by: EC Est Rev:B ECN 1113P 08-01-22 DD Est Rev:C ecn1162 08-04-02 DD verified by: EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description:
1.0	M304S26GA	304/316 0.018 SHEET
Comment: Qty.: 0.2573 sf(s)/Unit Total : 0.5145 sf(s) 304/316 SS sheet 26 ga (0.018" thick) Batch: <u>108415</u> <u>FB 8-9-22</u> (FOR D3651-7)		
2.0	WATER JET	FLOW WATER JET
Comment: FLOW WATER JET 1-Cut as per Dwg D3651 (D3651-7) Dwg Rev: <u>B</u> <u>FB 8-9-22</u> Prog Rev: <u>B</u> <u>(4)</u>		
2-Deburr if necessary <u>FB 8-9-22</u> IDENTIFY AS D3651-7		

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
<u>FB 8-9-22</u>		
Comment: INSPECT PARTS AS THEY COME OFF MACHINE		
4.0	QC8	SECOND CHECK
<u>5 08/09/02</u> <u>(4)</u>		
Comment: SECOND CHECK		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE ASS'Y

Job Number: 42114

Part Number: D3651043

Job Number:



Seq. #: Machine Or Operation:

Description :

5.0 M304S26GA 304/316 0.018 SHEET



Comment: Qty.: 0.2573 sf(s)/Unit Total : 0.5145 sf(s)

304/316 SS sheet 26 ga (0.018" thick)

Batch: 108415 RB 8-9-22

(FOR D3651-5)

6.0 WATER JET FLOW WATER JET



Comment: FLOW WATER JET

1-Cut as per Dwg D3651 (D3651-5)

Dwg Rev: B

Prog Rev: B RB 8-9-22

(4)

2-Deburr if necessary

Identify as D3651-5

RB 8-9-22

7.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



RB 8-9-22

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

8.0 QC8 SECOND CHECK



S 8 08/01/22 (x4)

Comment: SECOND CHECK

9.0 BRAKE NC NC BRAKE



Comment: NC BRAKE

Form D3651-5 and D3651-7 as per Dwg D3651

SB 08/01/24

10.0 QC5 INSPECT WORK TO CURRENT STEP



S 08/01/24 (x4)

Comment: INSPECT WORK TO CURRENT STEP

11.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



M 08/11/24 (x4)

Comment: LARGE FABRICATION RESOURCE 1

Weld assembly as per dwg D3651

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 18/09/2008 11:14:01 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: FLANGE ASSY
Job Number: 42114		Part Number: D3651043
Job Number:		
Seq. #:	Machine Or Operation:	Description :
12.0	QC9	VISUAL WELDING INSPECTION <i>✓ ✓ ✓ ✓</i> <i>x4</i>
Comment: VISUAL WELDING INSPECTION		<i>Cpl 08.11.25</i>
13.0	QC5	INSPECT WORK TO CURRENT STEP <i>✓ ✓ ✓ ✓</i>
Comment: INSPECT WORK TO CURRENT STEP		<i>10/12.01/05</i>
14.0	D36513	Base
Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s) BASE <i>44941</i>		<i>FF 09/02/05</i> <i>(4)</i>
15.0	MS20427M33	Rivet
Comment: Qty.: 16.0000 Each(s)/Unit Total : 22.0000 Each(s) Rivet <i>M 110022</i> <i>64</i>		<i>FF 09/02/05</i> <i>(4)</i>
16.0	MS210603K	Nut Plate
Comment: Qty.: 8.0000 Each(s)/Unit Total : 16.0000 Each(s) Nut Plate <i>m 109590</i> <i>32.</i>		<i>FF 09/02/05</i> <i>(4)</i>
17.0	CR3523401	RIVET <i>✓ ✓ ✓ ✓ -02</i>
Comment: Qty.: 57.0000 Each(s)/Unit Total : 114.0000 Each(s) RIVET <i>109321</i>		<i>FF 09/02/05</i> <i>(4)</i>
18.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
Comment: SMALL & MEDIUM FAB RESOURCE 1 Assemble as per dwg D3651		<i>FF 09/02/05</i> <i>(4)</i>
19.0	QC5	INSPECT WORK TO CURRENT STEP
Comment: INSPECT WORK TO CURRENT STEP		<i>S 09/02/05</i> <i>(4)</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09-02-04	17	DWS calls up -2 route per m change	[Signature]	09/02/25 (ALREADY DONE)		09-02-04	09-02-04

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 18/09/2008 11:14:01 AM
User: Julie Lecocq

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE ASS'Y

Job Number: 42114

Part Number: D3651043

Job Number:



Seq. #: Machine Or Operation:

Description :

20.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and stock

Location: _____

1-9/2/25 G

21.0 QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



u 09/02/25

DART AEROSPACE LTD	Work Order: 42114
Description: FLANGE ASSY	Part Number: D3651-5
Inspection Dwg: D3651-5, Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

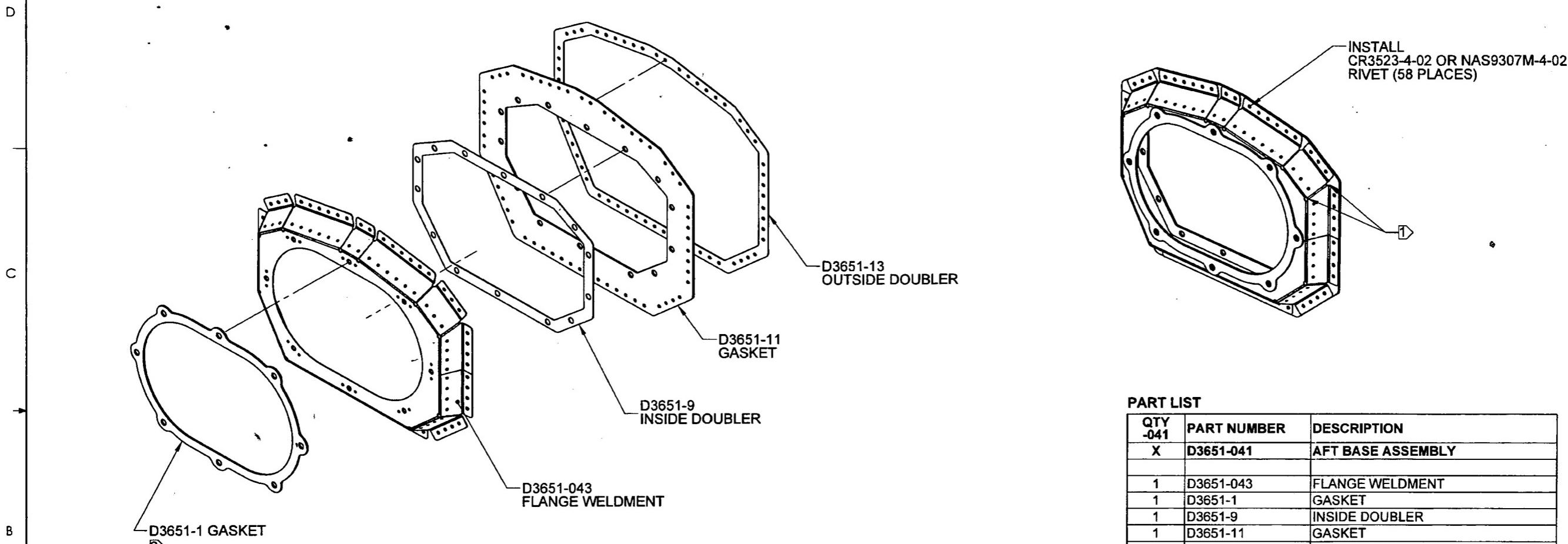
Measured by:	HB
Date:	8-9-22

Audited by: *J*

Prototype Approval:	✓	
Date:		12

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

8 7 6 5 4 3 2 1



PART LIST

QTY	PART NUMBER	DESCRIPTION
X	D3651-041	AFT BASE ASSEMBLY
1	D3651-043	FLANGE WELDMENT
1	D3651-1	GASKET
1	D3651-9	INSIDE DOUBLER
1	D3651-11	GASKET
1	D3651-13	OUTSIDE DOUBLER
58	CR3523-4-02 or NAS9307M-4-02	RIVET

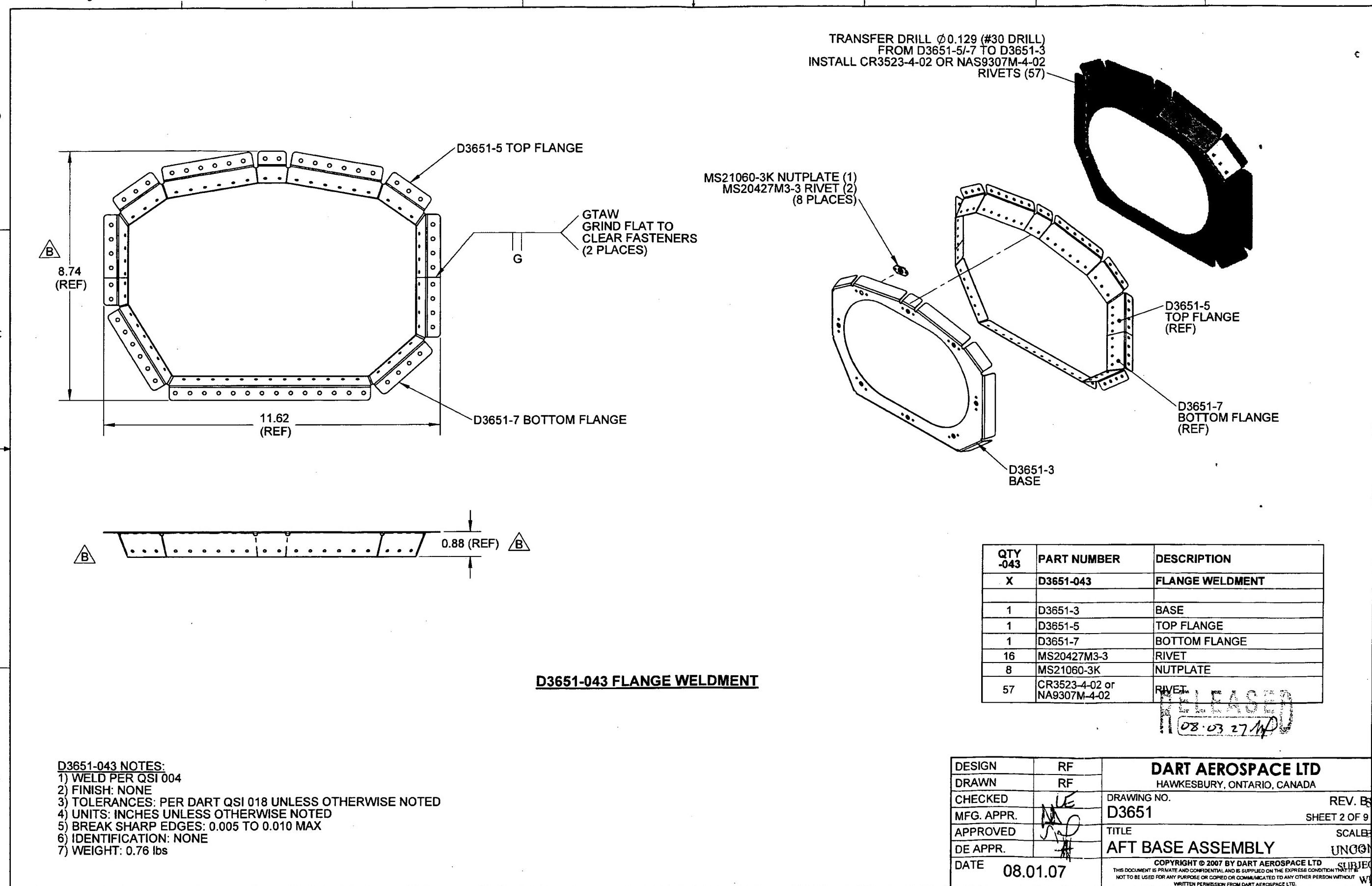
D3651-041 AFT BASE ASSEMBLY

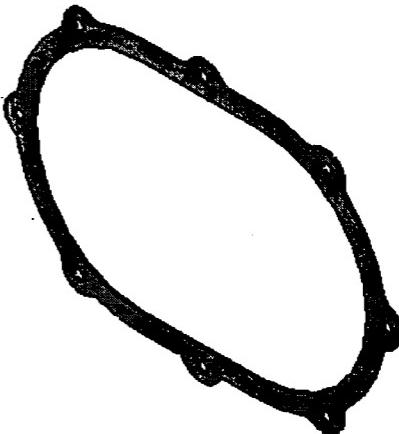
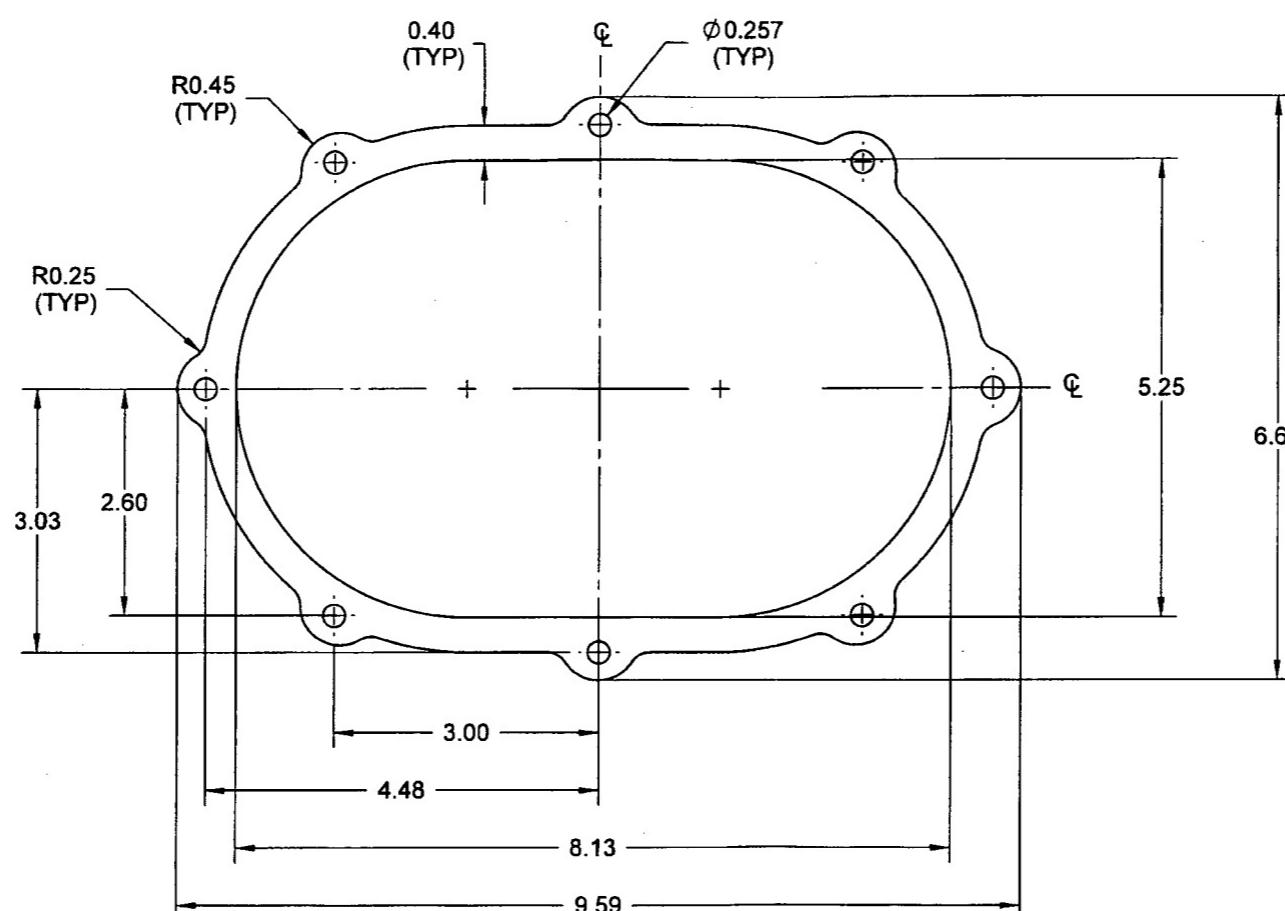
RELEASER
08-03-27/100

D3651-041 NOTES:

- 1) SEAL ALL MATING SURFACES AND GAPS USING PROSEAL 700 FIRE WALL SEALANT
- 2) INSTALL D3651-1 USING 3M HIGH PERFORMANCE CONTACT ADHESIVE 1357
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.6 lbs

B	SHEET 1: GENERAL UPDATE SHEET 2: 8.74 WAS 8.50; 0.88 WAS 0.98; REMOVED ANGLE SHEETS 4, 5, 6, 8 & 9; GENERAL DIMENSIONAL UPDATE SHEET 7: 5.514 WAS 5.504		RF	08.01.07
A	NEW ISSUE		RF	07.11.07
REV.	DESCRIPTION		BY	DATE
DESIGN		RF	DART AEROSPACE LTD	
DRAWN		RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		LE	DRAWING NO.	
MFG. APPR.		MA	D3651	
APPROVED		MM	REV. B	
DE APPR.		MM	SHEET 1 OF 9	
DATE		08.01.07	SCALE	
			1:4	
			UNCONTROLLED COPY	
			SUBJECT TO AMENDMENT	
			WITHOUT NOTICE	
			WORK ORDER	
			NO 1214	





D3651-1 GASKET

NOTES

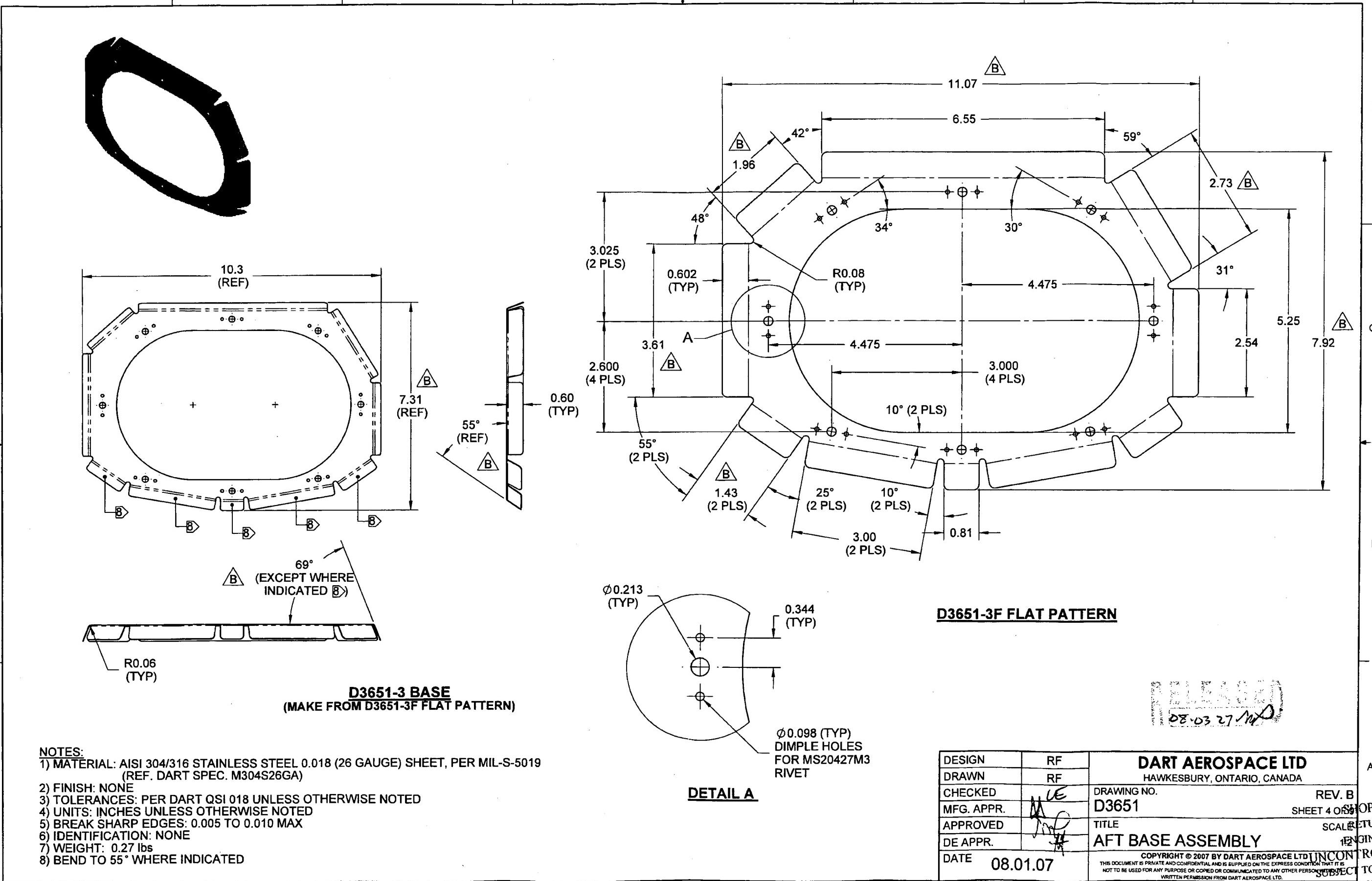
- NOTES:**

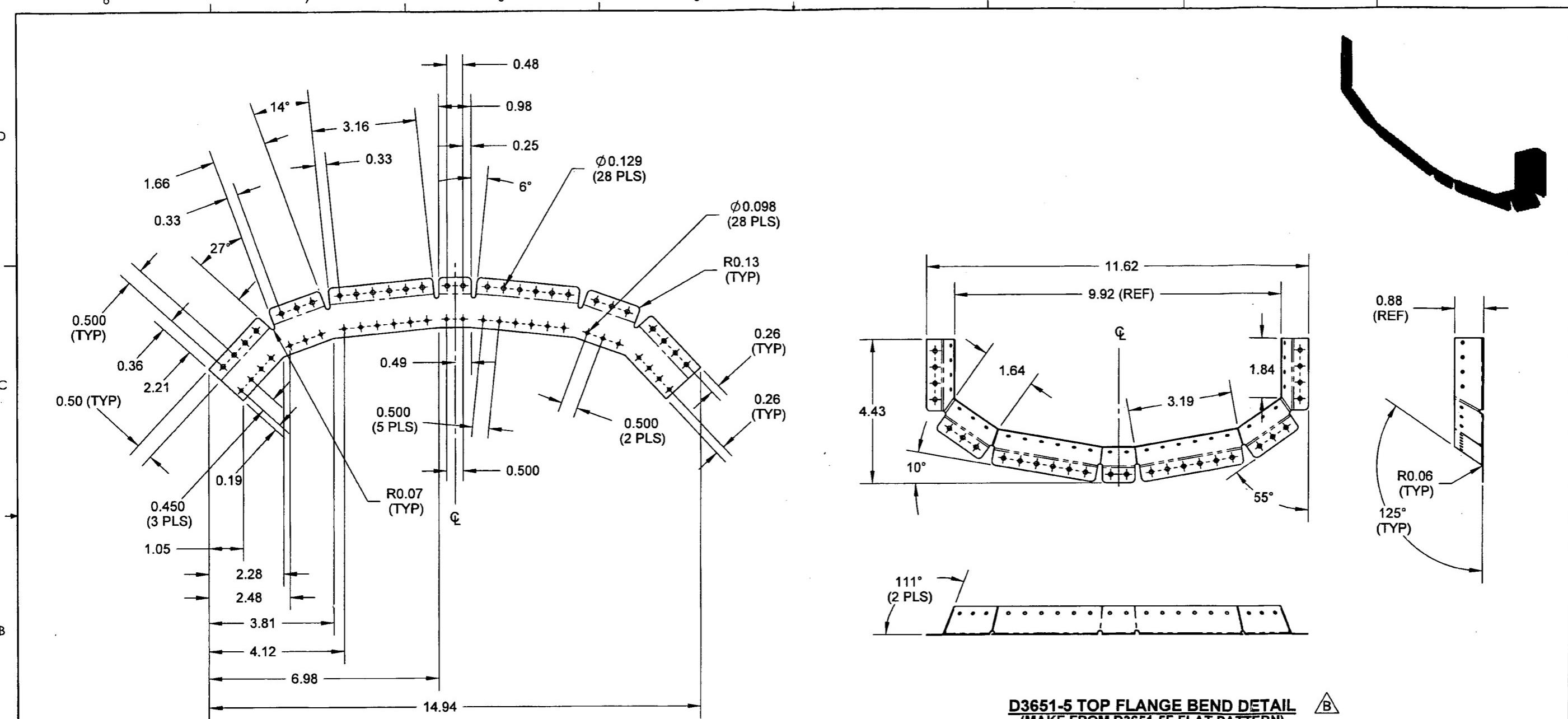
 - 1) MATERIAL: THERMO-CHEM P/N G-89, (REF. 0.060 THICK)
POSSIBLE SUPPLIER: A.R. THOMSON GROUP
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) PART IS SYMMETRIC ABOUT $\frac{C}{2}$
 - 8) WEIGHT: 0.09 lbs

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CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D3651	SHEET 3 OF 9
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	AFT BASE ASSEMBLY	1:2
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8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | WITHOUT NOTICE
WORK ORDER
NO. 42114





D3651-5F FLAT PATTERN B

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 (26 GAUGE) SHEET, PER MIL-S-5019
(REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.02 lbs

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>JK</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>MAP</i>	D3651	SHEET 5 OF 9
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DE APPR.	<i>#</i>	AFT BASE ASSEMBLY	1:3
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V. B
OF 9
CALE
1:3
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 4014

8 7 6 5 4 3 2 1

D

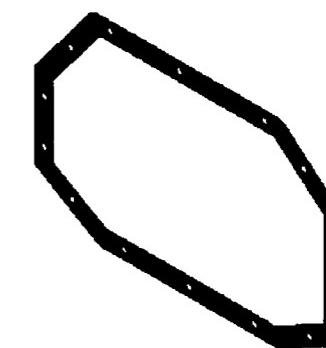
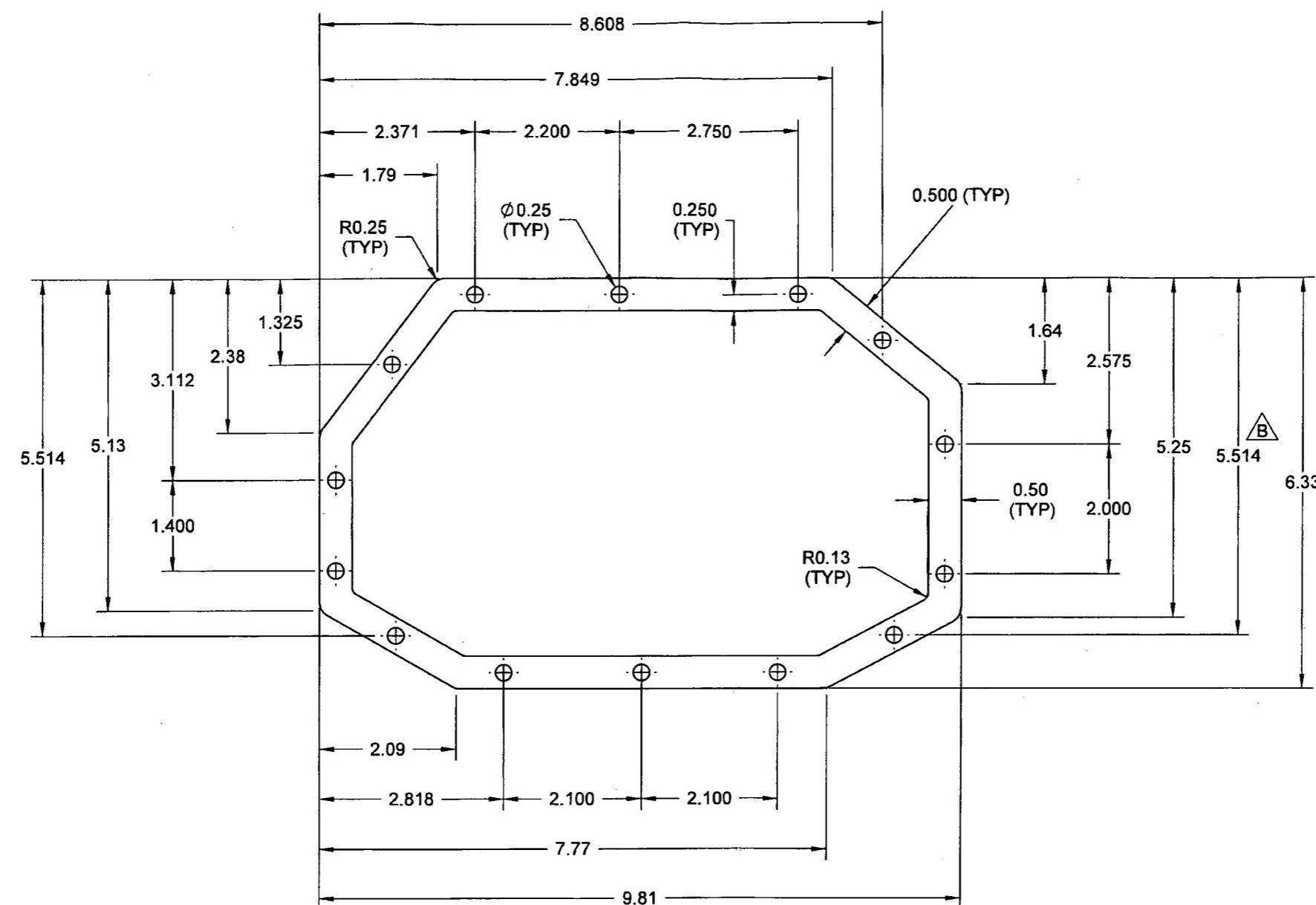
D

C

C

B

B



D3651-9 INSIDE DOUBLER

08-03-27 MD

A

A

NOTES:

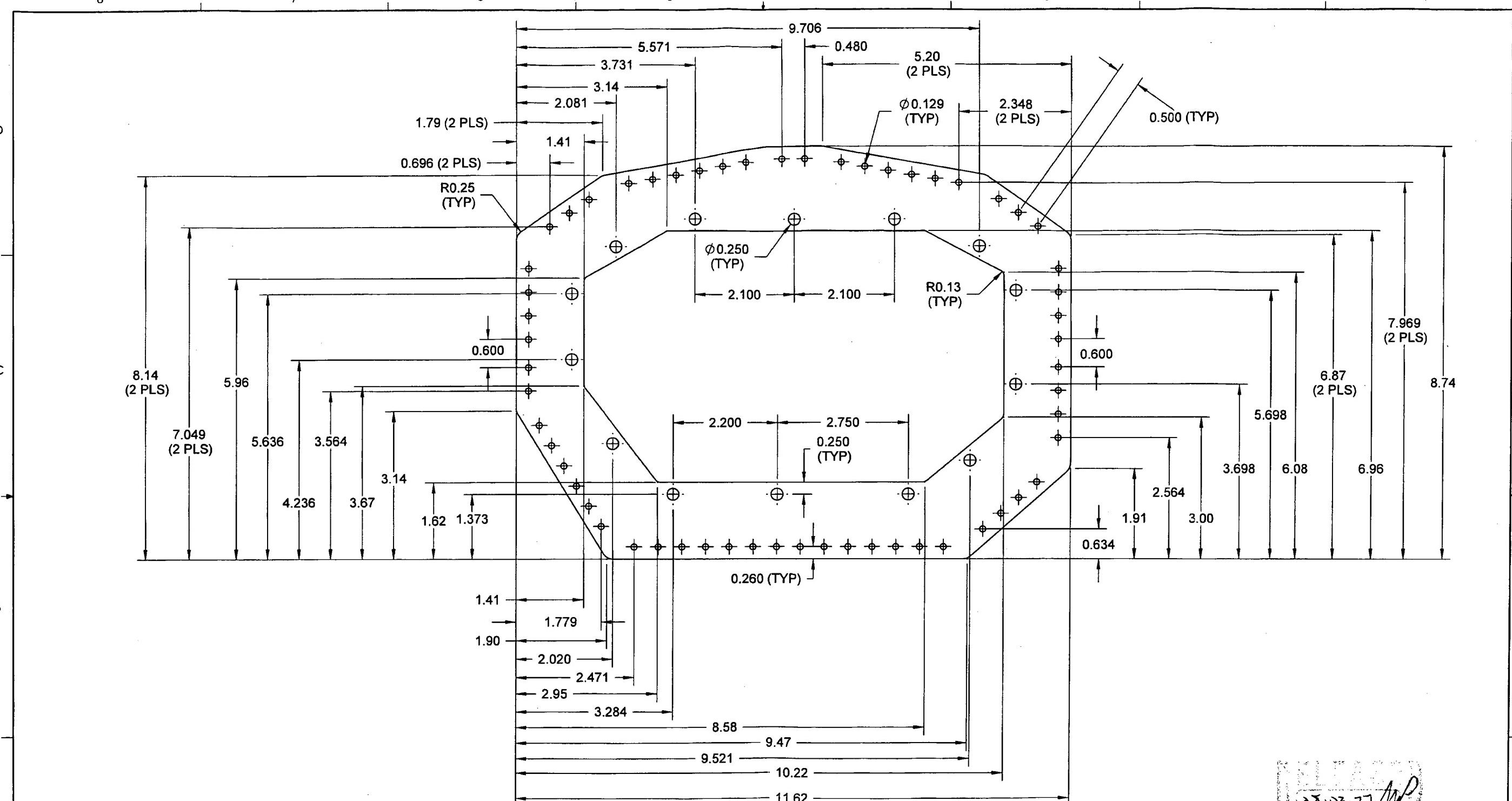
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 (26 GAUGE) SHEET, PER MIL-S-5019
(REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.07 lbs

DESIGN	RF
DRAWN	RF
CHECKED	LE
MFG. APPR.	MA
APPROVED	MM
DE APPR.	MM
DATE	08.01.07

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

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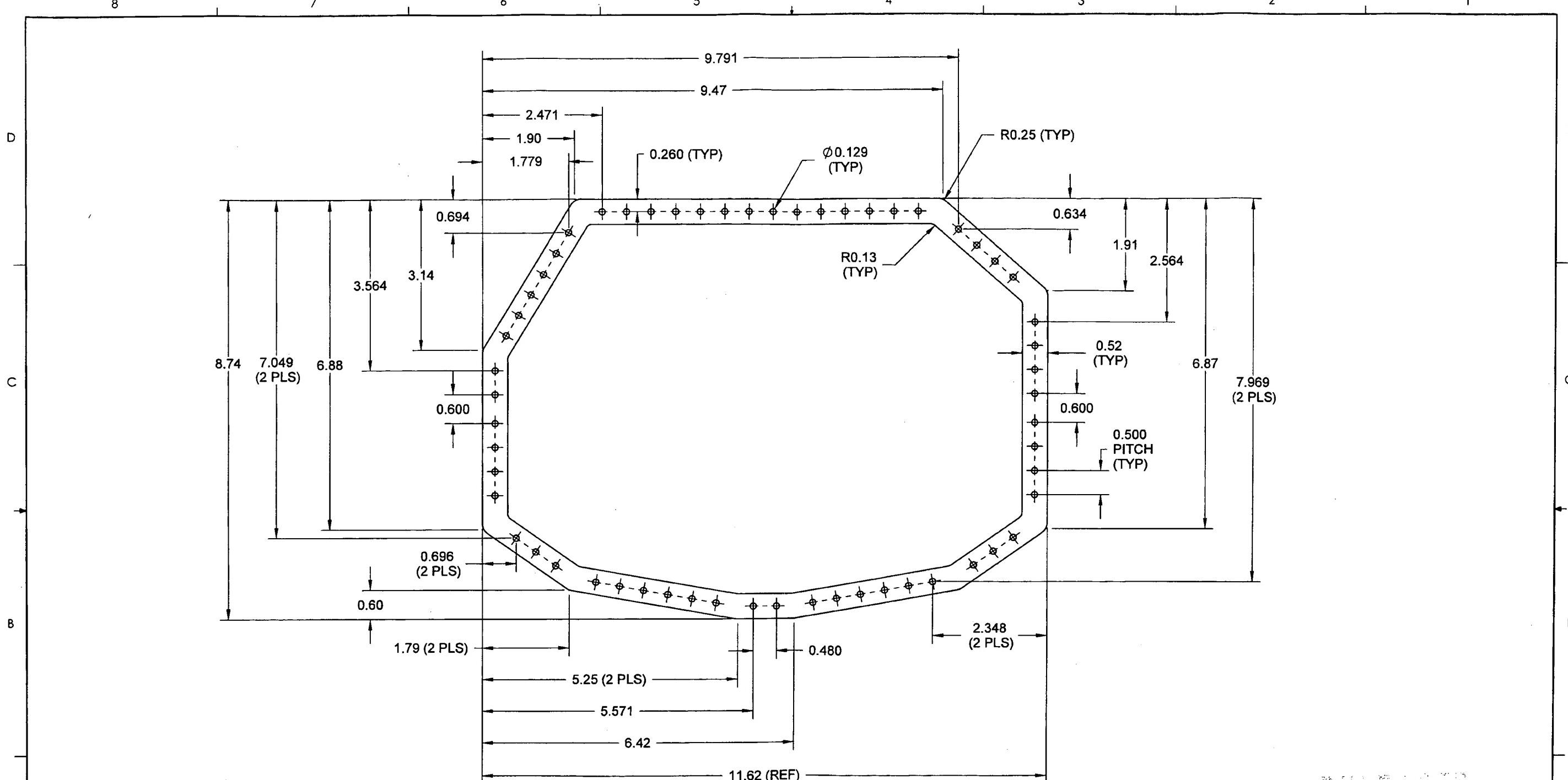


D3651-11 GASKET ▲

DESIGN	RF	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	JK	DRAWING NO.
MFG. APPR.	AC	D3651
APPROVED	JK	REV. B
DE APPR.	JK	SHEET 8 OF 9
DATE	08.01.07	SCALE
		1:2
		AFT BASE ASSEMBLY

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WORK ORDER
NO. 22014



D3651-13 OUTSIDE DOUBLER

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 (26 GAUGE) SHEET, PER MIL-S-5019
(REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.10 lbs

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>ME</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>ME</i>	D3651	SHEET 9 OF 9
APPROVED	<i>ME</i>	TITLE	SCALE
DE APPR.	<i>ME</i>	AFT BASE ASSEMBLY	1:25
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8 7 6 5 4 3 2 1 SUBJECT TO AND
WITHOUT NOTICE
WORK ORDER
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